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ABSTRACT

Course completion rates, as measures of college perfcrmance and student succeas, have been computed at Prince Georqe's Community Colleqe for the past 11 years. An analysis of Fall 1979 qrades revealed that the college-wide course completion rate was 72%. While the Health Technolcqy and Physical Education divisions continued to have higher course completion rates than the colleqe averaqe, Develcpmental Studies and Science and Mathematics courses and telecredit courses had rates below the average. Among the College's larqer departments, the Mathematics Department had the qreatest chanqe from 1978, declininq 4% to a 62% passinq rate. Passinq rates in introductory courses were lower than the combined completion rates for all other courses in 12 of 18 disciplines. When selected sections usinq the Personalized System of Instruction were reviewed, it was found that they had lower completion rates than sections of the same courses taught in the traditional lecture format, but that they also had hiqh prcportions of students receivinq an "A." Of the 20 disciplines with classes off-campus, 17 had higher completion rates at extension centers than at the central campus. While the prcportion of students not successfully completing courses remained stable since 1975, in 1979 a higher percentage of students withdrew than received a failinq qrade. Data tables illustrate findings. (Author/AYC)

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COURSE COMPLETION RATES FOR FALL 1979:

Impact on Student Retention

Report No. 80-16.

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PRINCE GEORGE'S COMMUNITY COLLEGE

Report No. 80-16: Course Completion Rates for Fall 1979:
Impact on Student Retention

Overview

The leveling off of student credit hours in the late Seventies after a decade of growth has renewed marketing efforts aimed at improved recruitment and retention. Successful coursework is essential to student persistence. The course completion or pass rate is an indicator of student success. The pass rate is defined as successful completions (grades A, B, C, D, TP, Pass, and Audit) as a percent of initial enrollments. Failures and withdrawals are ways of "not succeeding." Pass rates have been computed from final grade distributions for the past eleven academic years.

The major findings that emerged from pass rate analyses of Fall 1979 grades were the following:

(1) The college-wide course completion rate for Fall 1979 was 72 percent. This continues the pattern of the Seventies, as almost three students of every four enrolling in a class complete it.

(2) The Health Technology and Physical Education divisions continued to have higher pass rates than the college average. Developmental Studies and Science and Mathematics had rates below the average.

(3) Among the College's larger departments, Mathematics had the greatest change from 1978, declining four percentage points to a 62 percent pass rate.

(4) Pass rates in introductory courses were lower than the combined pass rates for all other courses in twelve of eighteen disciplines examined.

(5) Selected sections taught by the Personalized System of Instruction were reviewed. They had lower pass rates than sections of the same courses taught in the traditional lecture format, but they also had high proportions of students getting an A.

(6) Of the twenty disciplines with classes off-campus, seventeen had higher completion rates at extension centers than at Largo.

(7) While the proportion of students not successfully completing courses has remained stable since 1975, a higher percentage now withdraw rather than receive a failing grade.

Course Completion Rates by Division and Departments

The college-wide course completion rate for Fall 1979 was 72 percent. This was the same percentage as the previous two fall semesters. (See Table 1). Thus, the overall picture of completion rates has been one of stability. For whatever reason, one of every four students enrolling in a course does not successfully complete it. Previous studies identified blacks, first-time students, and those in the 21 - 25 age group as tending to have the most difficulty (see Report 78-37).

Pass rates of academic divisions have been relatively stable in recent years (see Table 2). Health Technology and Physical Education courses have had consistently high completion rates. English, Developmental, Science, and Mathematics courses have had rates below the college average. Three divisions have shown slight improvements since Fall 1977 (Business, P.E., and Social Science). Three others (Developmental, Science and Math, and Health) had 1979 pass rates two to five percentage points below their own 1977 level.

Pass rates were computed for each department. (See Table 3.) Departments with course completion rates that differed by more than eight percentage points from the college rate are listed in the following tables:

High Pass Rates, Fall 1979

1.	Nursing	93%
2.	Allied Health	87%
3.	Security Management	85%
4.	English as a Foreign Language	84%
5.	Physical Education/Recreation	83%
6.	Physical Science	81%

Low Pass Rates, Fall 1979

1.	Chemistry	49%
2.	Developmental Math	59%
3.	Physics	59%
4.	Mathematics	62%
5.	Secretarial Science	63%
6.	Geography	63%

Fall 1979 pass rates were compared with those of Fall 1978. Eighteen departments had improved course completion rates. Those with the greatest improvement were:

Department	Fall 78	Fall 79	Increase
Health Education	72%	83%	+11
Theater	60%	71%	+11
Engineering	62%	70%	+ 8
Economics	70%	75%	+ 5
Dental Assisting	90%	95%	+ 5

Twenty-two departments had pass rates below those of a year ago. Departments with the greatest decline in pass rates were:

Department	Fall 78	Fall 79	Decrease
Fire Science	92%	77%	-15
Medical Laboratory	97%	82%	-15
Law Enforcement	89%	78%	-11
Nuclear Medicine	100%	90%	-10
Geography	72%	63%	- 9

Six departments had no change from Fall 1978. Of the forty departments with changed pass rates, twenty-one moved closer to the college average. Small departments made up the majority of those with large changes. Departments with Fall 1979 enrollments in excess of 1,500 students tended to have more stable pass rates:

	Fall 1979 Enrollment	Completion Rate	Change from Fall 1978
Business	6,063	73%	Up one point
Mathematics	3,419	62%	Down four points
English Composition	2,910	66%	No change
Data Processing	1,941	73%	Down one point
Physical Education	1,740	83%	Up two points
Psychology	1,680	77%	No change
Speech	1,669	76%	Up one point

Completion Rates in Introductory Courses

Introductory courses tend to fail more students than later courses in the same subject. The reason is that beginning courses provide basic tools for further coursework. The better students pass the first course and get into the advanced courses. Thus introductory courses assume great significance for student retention. For this reason, completion rates were computed for introductory courses in eighteen disciplines (see Table 4). Pass rates ranged from a low of 46 percent in *Chemistry 101* to a high of 85 percent in *Nursing 151*. In twelve of the eighteen disciplines, the pass rate in the introductory course was lower than the combined pass rate for all other courses in the discipline. The greatest difference was in Career English, where the pass rate in the introductory course (EGL 131) was twenty-one percentage points below the average for all other courses in the department. Accounting and Music had the next largest difference, nineteen percentage points. To see how these rates had changed, comparison data for Fall 1977 were examined (see Table 5). Of the eighteen introductory courses under study, nine had improved pass rates in fall 1979, two had no change, and the remaining seven declined. *Physics 101* had the greatest decline, from 66 percent in Fall 1977 to 53 percent in Fall 1979. *Political Science 101* and *Engineering Technology 151* showed the greatest improvement over the two year period.

Course Completion Rates for PSI and Telecredit Classes

Is student success related to individualized instruction? Pass rates were computed for selected sections taught by the Personalized System of Instruction (see Table 6). In each case, the P.S.I. sections had a *lower completion rate* than sections of the same course taught in the standard lecture format. The combined completion rate for all P.S.I. sections was 61 percent, 11 percentage points below the college-wide rate. It was noted, however, that the P.S.I. students got a high proportion of A's. It could be concluded that students entering these sections could be informed that they have more of a chance of either getting a high grade or dropping out.

Completion rates were also caluclated for the five Telecredit courses offered in Fall 1979. (See Table 7.) Between 58 and 78 percent of students enrolling in these television classes completed their semester's work. The combined pass rate for Telecredit students was 65 percent, 7 percentage points below the overall college rate.

Student Success at Extension Centers

The initial Fall 1979 enrollment at off-campus locations totaled 3,484. Of these, seventy-eight percent (2,725) successfully completed their coursework. Thus the completion rate off-campus was seven percentage points higher than the overall rate for on-campus classes. (See Table 8.) Of the twenty disciplines that held classes off-campus, seventeen had higher completion rates off-campus than on-campus. Of those disciplines enrolling at least 100 students off-campus, four had completion rates more than ten percentage points higher off-campus:

Discipline	Enrolled Off-campus	Passed	Off-campus Pass Rate	On-campus Pass Rate
Career English	150	131	87%	64%
Developmental Studies	155	122	79%	62%
Mathematics	337	248	74%	60%
History	119	106	89%	76%

Course Attrition: Withdrawals, Failures, and Incompletions

Seventy-two percent of those enrolling in a class in Fall 1979 successfully completed it. What do we know about the twenty-eight percent who did not? The following table summarizes some relevant data. Fall 1975 data are included for comparison.

	Fall 1975		Fall 1979	
	Number	Percent	Number	Percent
Withdrawals	3,930	42%	5,467	52%
while passing (WP)	*3,757*	*40%*	*5,031*	*48%*
while failing (WF)	*173*	*2%*	*436*	*4%*
Failures (F)	5,147	55%	4,932	47%
Incompletes (I)	239	3%	126	1%
Total Non-completions	9,316	100%	10,525	100%
Initial Enrollments	35,127	N.A.	37,284	N.A.
Course Attrition Rate	27%		28%	

While the proportion of students not completing courses has remained relatively stable since 1975, a higher percentage now withdraw rather than receive a failing grade. *Withdrawals now constitute fifteen percent of initial enrollment, compared to eleven percent in fall 1975.* The percentage of students receiving an "F" has declined from fifteen percent in 1975 to thirteen percent in 1979.

The increasing withdrawal rate raises the question of what variables are associated with a student's decision to drop a class. The most obvious answer is academic difficulty; poor grades received early in the semester serve as a catalyst for withdrawal. Some course attrition results from student withdrawals from the College itself. Students withdrawing from the College participate in a short terminal interview with a counselor. At that time, students are asked to indicate their reasons for discontinuing their studies. The reason given most frequently in the past five years has been work conflict (see Table 9). (Ill health and "personal" reasons also appear often.) Counseling staff members have voiced some suspicions that the real reasons for leaving PGCC are not being indicated by students going through the current withdrawal process. "Why should they give an honest (and perhaps very threatening) answer to someone they have never talked with before?" Well aware of this and associated problems, the Human Development Department initiated development of a "Model for Tracking Students" in June, 1979. Bi-weekly discussions expanding on this concept have recently been held.

Discussion

Course completion rates impact on student retention and can serve as a measure of College performance. The present analysis has pointed out areas with high pass rates (extension centers, Health and P.E.) and those with rates below the college average (introductory courses, Math and Science). An earlier report (No. 78-37) identified first-time students, blacks, and those in their early twenties as having relatively low pass rates. Increased faculty and administrative effort may be indicated to assist students in the areas identified as having below average pass rates. Variables affecting course completion analyzed in this report included subject matter, level of course, mode of instruction, and location. Probably more important are a student's prior achievement, mastery of tool skills (verbal and math), and individual effort. Finally, performance is related to standards. "Easy" courses lead to high pass rates, but less competence. Maintaining high standards as students are found to be less well prepared is a challenge. Prince George's Community College will face this challenge creatively in the years immediately ahead, to the extent that "product line" is related to changing student needs, as well as changing community requirements for competence.

Craig Clagett, Analyst
Institutional Research

2/29/80

Table 1

PRINCE GEORGE'S COMMUNITY COLLEGE

College-wide Course Completion Rates,
1969-1979

Academic Year	Fall	Spring
1979-80	72%	
1978-79	72%	72%
1977-78	72%	71%
1976-77	73%	72%
1975-76	73%	73%
1974-75	74%	74%
1973-74	73%	73%
1972-73	73%	78%
1971-72	71%	75%
1970-71	72%	74%
1969-70	70%	74%

SOURCE: Office of Institutional Research, based on annual Systems and Programming reports (STU 265 and SDB 030). The completion rate equals the number of course completions divided by initial enrollment.

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Table 2

PRINCE GEORGE'S COMMUNITY COLLEGE

Course Completion Rates, by Division, Fall 1977-79

	Fall 1977	Fall 1978	Fall 1979
TECHNICAL AND CAREER	73%	74%	74%
Health Technology	92%	91%	90%
Scientific/Service Technology	74%	75%	74%
Business Technology	69%	71%	72%
ARTS AND SCIENCES	71%	71%	71%
P.E., Health, and Recreation	80%	80%	83%
Humanities	76%	75%	76%
Social Sciences	73%	74%	75%
English	68%	68%	68%
Science and Mathematics	67%	67%	64%
Developmental Studies	68%	66%	63%
TOTAL	72%	72%	72%

SOURCE: Institutional Research, based on SDB 030.

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Table 3

PRINCE GEORGE'S COMMUNITY COLLEGE

Course Completion Rates by Departments, Fall 1979

Divisions and Departments	Initial Enrollment	Successful Completions	Completion Rate
TECHNICAL AND CAREER	11,234	8,321	74%
Health Technology	958	861	90%
Medical Records	*46*	*44*	*96%*
Dental Assisting	*57*	*54*	*95%*
Nursing	*428*	*400*	*93%*
X-ray Technology	*54*	*50*	*93%*
Respiratory Therapy	*70*	*64*	*91%*
Nuclear Medicine	*40*	*36*	*90%*
Health	*72*	*64*	*89%*
Medical Laboratory	*39*	*32*	*82%*
Mental Health	*37*	*29*	*78%*
Early Childhood Education	*115*	*88*	*77%*
Scientific/Service Technology	3,316	2,442	74%
Security Management	*73*	*62*	*85%*
Law Enforcement	*555*	*431*	*73%*
Fire Science	*35*	*27*	*77%*
Data Processing	*1,941*	*1,423*	*73%*
Engineering Technology	*641*	*450*	*70%*
Correctional Services	*71*	*49*	*69%*
Business Technology	6,960	5,018	72%
Business Studies	*6,063*	*4,454*	*73%*
Secretarial Science	*897*	*564*	*63%*
ARTS AND SCIENCES	26,050	18,436	71%
P.E., Health, & Recreation	2,313	1,915	83%
Physical Education	*1,740*	*1,439*	*83%*
Health	*360*	*299*	*83%*
Recreation	*213*	*177*	*83%*
Humanities	4,207	3,212	76%
English as a Foreign Language	*231*	*194*	*84%*
Art	*958*	*761*	*79%*
French/German/Spanish	*335*	*266*	*79%*
Speech	*1,669*	*1,263*	*76%*
Philosophy	*370*	*277*	*75%*
Theater	*119*	*84*	*71%*
Music	*525*	*367*	*70%*

Course Completion Rates by Departments, Fall 1979 (Continued)

Divisions and Departments	Initial Enrollment	Successful Completions	Completion Rate
Social Sciences	6,224	4,659	75%
Anthropology	*106*	*84*	*79%*
Psychology	*1,680*	*1,297*	*77%*
History	*1,431*	*1,107*	*77%*
Economics	*1,299*	*979*	*75%*
Sociology	*943*	*694*	*74%*
Social Science	*50*	*34*	*68%*
Political Science	*576*	*376*	*65%*
Geography	*139*	*88*	*63%*
English	4,257	2,893	68%
Sophomore Literature	*406*	*320*	*79%*
Career English	*941*	*640*	*68%*
Composition	*2,910*	*1,933*	*66%*
Science and Mathematics	6,163	3,951	64%
Physical Science	*590*	*480*	*81%*
Biology	*1,127*	*807*	*72%*
Engineering	*130*	*91*	*70%*
Mathematics	*3,419*	*2,110*	*62%*
Physics	*235*	*139*	*59%*
Chemistry	*662*	*324*	*49%*
Developmental Studies	2,886	1,806	63%
Education	*136*	*91*	*67%*
Developmental Reading	*712*	*469*	*66%*
Developmental English	*770*	*504*	*65%*
Developmental Math	*1,268*	*742*	*59%*
TOTAL	37,284	26,757	72%

SOURCE: Institutional Research, based on SDB 030.

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Table 4

PRINCE GEORGE'S COMMUNITY COLLEGE

Completion Rates for Selected On-campus Introductory Courses, Fall 1979

Introductory Course	Initial Enrollment	Successful Completions	Pass Rate	Combined Pass Rate for All Other Courses in this Discipline
Chemistry 101	286	132	46%	51%
Business 103 (Accounting)	960	510	53%	72%
Physics 101	64	34	53%	61%
Music 100	79	43	54%	73%
Career English 131	491	285	58%	79%
Engineering Technology 151	160	101	63%	73%
English Composition 101	1,732	1,104	64%	70%
Political Science 101	334	226	68%	62%
Biology 101	435	312	72%	72%
Sociology 101	574	412	72%	76%
Law Enforcement 151	142	104	73%	79%
Data Processing 150	781	576	74%	73%
Speech 101	915	688	75%	76%
Philosophy 101	286	218	76%	70%
Psychology 101	705	539	76%	78%
Engineering 101	78	59	76%	62%
Business 101	1,230	952	77%	72%
Nursing 151	89	76	85%	96%
TOTAL	8,381	5,861	70%	73%

SOURCE: Office of Institutional Research, based on SDB 030.

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Table 5

PRINCE GEORGE'S COMMUNITY COLLEGE

Comparison of Pass Rates in Introductory Courses
for Selected Disciplines, Fall 1977 and Fall 1979

Introductory Course	Fall 1977	Fall 1979	Change
Physics 101	66%	53%	-13
Career English 131	66%	58%	- 8
Music 100	61%	54%	- 7
Chemistry 101	52%	46%	- 6
Law Enforcement 151	78%	73%	- 5
Speech 101	78%	75%	- 3
Business 103 (Accounting)	55%	53%	- 2
Sociology 101	72%	72%	0
Biology 101	72%	72%	0
Philosophy 101	75%	76%	+ 1
English Composition 101	62%	64%	+ 2
Data Processing 150	72%	74%	+ 2
Engineering 101	74%	76%	+ 2
Nursing 151	82%	85%	+ 3
Business 101	73%	77%	+ 4
Psychology 101	69%	76%	+ 7
Political Science 101	58%	68%	+10
Engineering Technology 151	52%	63%	+11

SOURCE: Office of Institutional Research, based on SDB 030.

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Table 6

PRINCE GEORGE'S COMMUNITY COLLEGE

Comparison of Course Completion Rates, Personalized System of Instruction with Standard Lecture Mode, Fall 1979

Course	Initial Enrollment	Completions	Completion Rate
Psychology 101			
Personalized System	360	248	69%
Standard Lecture	780	607	78%
On campus	*669*	*518*	*77%*
Extension centers	*111*	*89*	*80%*
Mathematics 107			
Personalized System	83	33	40%
Standard Lecture	178	102	57%
On campus	*103*	*56*	*54%*
Extension centers	*75*	*46*	*61%*
Mathematics 151			
Personalized System	62	27	44%
Standard Lecture	799	516	65%
On campus	*649*	*394*	*61%*
Extension centers	*150*	*122*	*81%*
History 141			
Personalized System	35	23	66%
Standard Lecture	411	336	82%
On campus	*367*	*297*	*81%*
Extension centers	*44*	*39*	*89%*
Total all PSI classes	540	331	61%

SOURCE: Office of Institutional Research, based on SDB-030.

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Table 7

PRINCE GEORGE'S COMMUNITY COLLEGE

Completion Rates for Telecredit Courses, Fall 1979

Course	Initial Enrollment	Completions	Completion Rate
EGL 201 - English Literature I	30	22	73%
HST 141 - American History	39	23	59%
HST 198 - Ascent of Man	36	28	78%
PSY 101 - As Man Behaves	36	21	58%
SOC 102 - Family Portrait	40	23	58%
Total all Telecredit courses	181	117	65%

SOURCE: Office of Institutional Research, based on SDB-030.

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Table 8

PRINCE GEORGE'S COMMUNITY COLLEGE

Course Completion Rates at Extension Centers,
by Disciplines, Fall 1979

Discipline	Initial Enrollment	Successful Completions	Pass Rate	Pass Rate of On-campus Sections in this Discipline
Art	55	53	96%	78%
Physical Science	68	62	91%	80%
History	119	106	89%	76%
Philosophy	16	14	88%	74%
Career English	150	131	87%	64%
Psychology	155	128	83%	77%
Speech	100	83	83%	75%
Economics	90	73	81%	75%
Data Processing	326	260	80%	72%
P.E., Health & Rec.	109	87	80%	83%
Developmental Studies	155	122	79%	62%
Sociology	53	42	79%	73%
Public Services	42	33	79%	78%
Business	1,125	872	78%	73%
Biology	51	40	78%	71%
Mathematics	337	248	74%	60%
Political Science	74	54	73%	64%
English Composition	368	261	71%	66%
Engineering Technology	14	9	64%	70%
Secretarial Science	77	47	61%	63%
TOTAL off-campus	3,484	2,725	78%	
TOTAL on-campus	33,800	24,032	71%	

SOURCE: Office of Institutional Research, based on SDB 030. Completions include grades A, B, C, D, TP, Audit, and Pass.

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Table 9

PRINCE GEORGE'S COMMUNITY COLLEGE

Reasons for Withdrawal Given by Students to Counselors,
Fall 1975-79

	Fall 1975	Fall 1976	Fall 1977	Fall 1978	Fall 1979
Work conflict	207	256	303	327	282
Personal	122	143	150	161	N.A.
Ill health	106	123	112	101	170
Moving from area	41	51	54	48	50
Academic difficulty	21	22	32	39	193
Lost interest	25	34	47	37	N.A.
Family illness	N.A.	N.A.	44	35	N.A.
Financial difficulties	26	49	43	33	45
Transfer to another institution	29	36	28	16	N.A.
Military service	18	16	10	16	N.A.
Other reasons	158	192	239	133	284
TOTAL	753	922	1,062	946	1,024

SOURCE: Withdrawal Survey, Human Development Center. Students who gave no reason are excluded. A different withdrawal form was used in Fall 1979. The category "Personal" was discontinued. "Ill health" included both personal and family health concerns. "Academic difficulty" included those who lost interest.

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